THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte MIREK PLANETA

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Appeal No. 95-3879
Application 08/162,920[1]

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ON BRIEF

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Before KIMLIN, WEIFFENBACH and OWENS, Administrative Patent Judges.

WEIFFENBACH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-4 which are all of the claims in the application. We affirm-in-part.

Claimed Subject Matter

The claims on appeal are directed to a collapsing frame in an apparatus for manufacturing thin

[1] Application for patent filed December 8, 1993. According to the appellant, the application is a continuation of Application 07/945,781, filed September 16, 1992, now abandoned.

plastic tubes. Claims 1 and 3 are representative of the claimed subject matter and read as follows:

> 1. A collapsing frame for collapsing a moving tube of plastic material from a circular cross section to a flattened formed, said frame comprising;
>
> a pair of frame members positionable on diametrically opposite sides of the tube to converge towards each other in the direction of movement of the tube so as to collapse the tube by engagement of the tube therewith;
>
> each frame member having mounted thereon for engagement by the tube a series of longitudinally spaced roller assemblies mounted for free rotation about axes substantially transverse to the direction of movement of the tube;
>
> each roller assembly comprising a series of independently rotatable rollers each having a peripheral surface oriented to tend to move the tube at an outwardly inclined angle to the direction of movement of the tube, and each roller having a diameter in the range of 12.5mm to 25mm and a length in the range of 12mm to 5cm.
>
> 3. A collapsing frame according to claim 1 wherein said rollers are mounted on axles which extend from a longitudinal centre line in opposed directions substantially transverse and rearwardly inclined to the direction of movement of the tube to tend to move the tube at an outwardly inclined angle to the direction of movement of the tube.

References of Record

The following references of record are relied upon by the examiner as evidence of obviousness:

Schott, Jr. (Schott)	3,980,418	Sep. 14, 1976
Planeta	4,533,309	Aug. 6, 1985
Noble	207,171 (Australia Patent Specification)	Dec. 6, 1956

Planeta discloses a collapsing frame in an apparatus for manufacturing thin plastic tubes. The reference shows in Fig. 1 a collapsing frame for collapsing a moving tube of plastic material from a circular

cross section to a flattened form. The frame comprises a pair of frame members positioned diametrically opposite the sides of the tube. The frame members converge towards each other in the direction of movement of the tube such that when the tube engages the frame members, the tube is collapsed. Fig. 2 shows that each frame member has a series of longitudinally spaced independently rotatable roller assemblies mounted thereon for engagement with the plastic tube. The roller assemblies rotate freely about axes substantially transverse to the direction of the movement of the tube. The reference discloses that each roller has a diameter in the range of 12.5 mm to 25 mm and a length in the range of 12 mm to 5 cm (col. 2, lines 27-29). Planeta does not teach or suggest using a series of rollers each having a peripheral surface orientated to tend to move the tube at an outwardly inclined angle to the direction of movement of the tube.

Noble discloses a pair of freely rotatable guide rollers for collapsing thin walled seamless plastic tubes in an apparatus for manufacturing such tubes. The surfaces of the rollers have spiral grooves or ridges (Fig. 3, p. 3). According to Noble, the rollers have the spiral configuration to reduce the resistance to lateral movement of the tube thus eliminating or reducing the risk of creasing the thin walled tube (p. 2).

According to the examiner, the Schott reference teaches the use of rearwardly inclined side rollers and perpendicular center rollers in a thin tube collapsing frame apparatus for the purpose of ensuring a properly guided, stabilized tube.

The Rejections

Claims 1 and 2 stand rejected under 35 U.S.C. § 103 as being unpatentable over Planeta in view of Noble.

Claims 3 and 4 stand rejected under 35 U.S.C. § 103 as being unpatentable over Planeta in view of Noble and Schott.

Opinion

At the outset, we note that on page 3 of the brief, appellant states that the claims do not stand or fall together but that claim 2 stands or falls with claim 1 and claim 4 stands or falls with claim 3. We have carefully considered the respective positions advanced by appellant and the examiner. For the following reasons, we will sustain the examiner's rejection of claims 1 and 2, but reverse the rejection of claims 3 and 4.

According to appellant, the claimed subject matter is an improvement over the collapsing frame disclosed by Planeta. Appellant discloses that "some tubes collapsed by the frames such as those described in [Planeta] are not as sufficiently wrinkle free as is desired" (specification: p. 2,

lines 8-11). To solve this problem, appellant provides means for the rollers to move the tube at an outwardly inclined angle to the direction of movement of the tube. Appellant discloses three embodiments to accomplish this result. In the first embodiment, each of the rollers has a raised helically contoured surface which tends to move the tube outwardly (claim 2). In the second embodiment, the rollers to the left and right side of the longitudinal center line of the frame are mounted on axles which are substantially transverse to, but rearwardly inclined to the direction of travel of the tube (claim 3). In the third embodiment, only the rollers at the end of the axles extend rearwardly inclined to the direction of movement of the tube (claim 4).

Noble discloses a pair of "scrolled rollers" on opposite sides of the tubular member to assist in collapsing the tube (Fig. 1, reference numerals 21 and 22). Noble defines "scrolled rollers" as meaning "rollers bearing on their curved surfaces a tracery of broken or unbroken spiral grooves or ridges" and that "[n]ormally the spiral grooves or ridges have their origin at or near a point on the curved surface situated at equal distances from the ends of the roll, and proceed in opposite directions outwards to the ends thereof" (p. 3 and see Fig. 3). Both Planeta's and Noble's rollers are undriven and freely rotate about their axes. Noble discloses that "resistance to the lateral movement of the tube across the guide rollers in the course of the collapsing operation was reduced, ... the risk of creasing thin-walled tubes ... was reduced or eliminated" (pp. 4-5). From these teachings, we conclude that a person having ordinary skill in the art would have been motivated to modify the rollers on Planeta's collapsing frame such that each of the rollers

of Planeta's collapsing frame to the left of the longitudinal center line of the frame have spiral ridges going to the left while those each of the rollers to the right of the longitudinal center line have spiral ridges going to the right.

Appellant appears to concede that the examiner has established a *prima facie* case of obviousness and argues that a declaration by the inventor under 37 CFR § 1.132 rebuts the *prima facie* case. We have considered the declaration, but we find it inadequate.

According to the declarant, the pair of "scrolled rollers" disclosed by Noble "does not work satisfactorily because a collapsing tubular film has different speeds across its width and consequently such large rollers cannot effect satisfactory collapse" and that as a result, "[s]uch an arrangement (with one roller) is used only with plastic film in the form of a single flat web, and in fact has been so used for about fifty years" (declaration: p. 2, ¶5). Neither the declarant nor the specification set forth what a "satisfactory collapse" means. The specification speaks in terms of minimizing wrinkling (p. 2, lines 12-14) and this is precisely what would be expected in view of the teachings of Noble. While the collapsing film may have different speeds across the width of the film, the declarant has not provided any evidence that appellant's claimed collapsing frame would provide unexpected results over Noble's pair of "scrolled rollers" to collapse a thin filmed tube. Accordingly we conclude that the declaration does not show unexpected results that would rebut the *prima facie* case established by the combined teachings of Planeta and Noble. For the foregoing reasons, the decision of the examiner rejecting claims 1 and 2 over Planeta and Noble is

affirmed.

However, the examiner's rejection of claims 3 and 4 under 35 U.S.C. § 103 over Planeta, Noble and Schott is reversed because the art taken as a whole does not present a *prima facie* case of obviousness. We do not share the examiner's view concerning the teachings of the Schott reference. Schott's guide assembly is not part of or related to the collapsing frame of the apparatus disclosed in Schott. The examiner's reliance on the guide assembly of Schott as showing that it would be obvious to a person having ordinary skill in the art to modify Planeta's collapsing frame roller mechanism to mount rollers to the left and right side of the longitudinal center line of the frame such that the rollers are substantially transverse to and rearwardly inclined to the direction of travel of the tube is far reaching. Schott does not teach or suggest that the guide assembly is used as a collapsing frame or for the purpose of collapsing thin walled plastic tubes. The examiner has not provided any analysis of Schott explaining how and why a person having ordinary skill in the art reading Schott would have been led to employ Schott's guide assembly as a collapsing frame with the expectation of minimizing wrinkles in the collapsed plastic tubing. Neither Planeta nor Noble make up for the deficiencies of Schott. For these reasons, the examiner's rejection of claims 3 and 4 cannot be sustained.

Conclusion

The examiner's rejection of claims 1 and 2 under 35 U.S.C. § 103 over the combined teachings of Planeta and Noble is affirmed while the rejection of claims 3 and 4 over Planeta, Noble and Schott is reversed. Accordingly, the examiner's decision is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

EDWARD C. KIMLIN Administrative Patent Judge	)	
CAMERON WEIFFENBACH Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
TERRY J. OWENS Administrative Patent Judge	)	

Rogers and Scott
214 Randall Street
Oakville, Ontario
Canada, L6J 1P7